

- 13 -

Claims:

1. A hearing device with a behind-the-ear microphone arrangement (1) not to be placed in the ear canal (5) of an individual's ear, said microphone arrangement (1) having at least one microphone (3) with an output (A_3), further comprising an electrical/mechanical output converter (15), characterized by a further microphone (7), a beam former unit (9) having at least two inputs and an output, one input being operationally connected to the output of said one microphone (3), the second input being operationally connected to the output of said further microphone (7), the output of said beam former unit (9) being operationally connected to an input of said output converter (15), said beam former unit together with said one and said further microphone having a transfer characteristic of acoustical signals impinging on said one and said further microphones (3, 7) to an electric signal at said output (A_{11}) of said beam former unit (9), the amplification thereof being dependent on direction with which said acoustical signals impinge on said microphones (3, 7) and on frequency of said acoustical signals, said direction being 0° in direction of individual's facing and 90° substantially in ear canal outwards direction of said ear, said transfer characteristic having the following features:
 - 25 • a substantially constant amplification independent of said direction of impinging at said frequency of 1 kHz,
 - for said direction being 45° , a larger amplification than for said direction being 135° at said frequency of 5 kHz.

- 14 -

2. The hearing device of claim 1, wherein said amplification at said 45° direction is larger by approx. +6 dB than said amplification at said 135° direction, said frequency being 5 kHz.
- 5 3. The device of claim 1 or 2 having at least two controllably enableable operating modi with respect to transfer characteristic of acoustical signals impinging on said one and said further microphones (3, 7) to said electric signal at said output (A_{11}), one of said transfer characteristics being said transfer characteristic.
- 10 4. The device of claim 3 further comprising a controlled weighting unit controllably establishing the ratio of effect of said at least two operating modi upon said transfer characteristic.
- 15 5. The device of claim 4, wherein said controlled weighting unit steadily changes said ratio.
6. The device of one of claims 1 to 5, said further microphone (7) being part of said microphone arrangement (1).
- 20 7. The device of one of claims 1 to 6, said further microphone (7) being part of a second hearing device to be applied at a second ear of said individual.
8. The device of one of claims 1 to 7 being a behind-the-ear hearing device.
- 25 9. The device of one of claims 1 to 8 being a behind-the-ear hearing aid device.
10. The device of one of claims 1 to 8 being a hearing protection device.